Claims

1. A friction brake, having a rotatable brake body, having a friction brake lining, and having an actuating device with which the friction brake lining can be pressed against the brake body, characterized in that the friction brake lining (10) has a band brake (34), whose brake band (36) is operatively connected to the actuating device (22), so that a tensile stress on the brake band (36) drives the actuating device (22) in the direction of pressing the friction brake lining (18) against the brake body (14).

2. The friction brake of claim 1, characterized in that the band brake (34) has a tensing device (40) with a tensing element (58, 60) for tensing the brake band (36), and the tensing element (58, 60) for tensing the brake band (36) can be pressed against a portion (64, 66) of the brake band (36) that leads away at a tangent from a drum (16) of the band brake (34).

3. The friction brake of claim 2, characterized in that the tensing device (40) of the band brake (34) has two tensing elements (58, 60), which for tensing the brake band (36) can be pressed against two portions (64, 66) of the brake band (36) that lead away from the drum (16) of the band brake (34).

4. The friction brake of claim 3, characterized in that the two tensing elements (58, 60) are movable toward one another and can be pressed against outer sides, facing away from one another, of the portions (64, 66) of the brake band (36) that lead away from the drum (16) of the band brake (34).

5. The friction brake of claim 2, characterized in that the tensing element (58, 60) has a nut (58), which is displaceable by driving a spindle (42) to rotate.

6. The friction brake of claim 3, characterized in that the two tensing elements (58, 60) each have one nut (58), and the two nuts (58) are disposed on a common spindle (42) with two opposed threads (44, 46) for the two nuts (58) and are displaceable in opposite directions by rotation of the spindle (42).

7. The friction brake of claim 5 or 6, characterized in that the spindle (42) is axially displaceable.

8. The friction brake of claim 5 or 6, characterized in that the tensing device (40) has an electric motor (56) for driving the spindle (42) to rotate.

9. The friction brake of claim 1, characterized in that the actuating device has a screw gear (22) with a rotatable drive element (26) and with a power takeoff element (24), displaceable by rotation of the drive element (26), for pressing the friction brake lining (18) against the brake body (14), and that one end (38) of the brake band (36) eccentrically engages the drive element (26) of the screw gear (22).

10. The friction brake of claim 9, characterized in that the two ends (38) of the brake band (36) eccentrically engage the drive element (26) of the screw gear (22), so that a tensile stress on the brake band (36), via both ends (38) of the brake band (36), exerts a torque in the same direction on the drive element (26).